

3.12 PUBLIC SAFETY AND SECURITY

3.12.1 Introduction to Analysis

3.12.1.1 Summary of Results

The Regional Transportation District (RTD) has a well-established security force and program in place for the safety of its patrons and those indirectly impacted by their operations. The Preferred Alternative would have no anticipated effect on crime in the project study area. Crime at transit stations or on board vehicles is expected to reflect the crime activity of the surrounding communities. Because Denver and Westminster have higher crime rates than the rest of the project study area, the proposed South Westminster/71st Avenue and Westminster/88th Avenue stations may require additional protection. However, actual reported crime rates at existing park-n-Ride stations within 0.5 mile of the proposed alignment indicate that crime is low, with only two crimes reported in 2008 (J. Tarbert, pers. comm. 2009).

Increased train frequency at at-grade railroad crossings could increase emergency response times along the proposed alignment. The higher frequency of trains could also impact safety at railroad crossings. However, safety at most crossings would improve when crossings are outfitted with the crossing protection measures required by RTD standards.

The roadway and transit projects included in the No Action Alternative would likely result in direct, indirect, temporary construction, and cumulative impacts to safety and security. The extent of these impacts will be evaluated in the environmental documents being prepared for these projects.

3.12.1.2 Purpose

Public safety and security is evaluated because it is a concern during both construction and operation. This section describes the existing safety and security resources and examines the potential effect of the project on station area safety, on-board vehicle safety, and police, fire, and emergency response times. The likelihood of change to crime rates in the project study area is also considered.

3.12.2 Affected Environment

3.12.2.1 Existing RTD Security Measures

RTD has a well-established security force and program in place for the safety of its patrons and those indirectly impacted by their operations. The existing security system consists of a combination of internal and contracted staff. Security is provided on trains during hours of rail operation and at station areas. The RTD security force works with local police to control crime at park-n-Ride facilities. Certain park-n-Ride facilities, stations, and all trains are equipped with video surveillance. Security forces are increased with the expansion of service and as new projects are implemented.

For new rail projects, RTD convenes a Fire and Life Safety Committee comprised of representatives from local law enforcement and emergency services. This committee will assist with the development of an emergency plan for the project study area and coordinate

responses to various emergency situations. RTD also has design guidelines for station areas to reduce crime at stations and parking facilities.

3.12.2.2 Station Area and On Board Crime

To determine existing and on-board crime rates, crime statistics were gathered for each of the jurisdictions within the project study area (Table 3.12-1). Crime generally corresponds with larger populations and more intense urban uses with the highest occurrence of crime in Denver and the lowest in Louisville.

TABLE 3.12-1. EXISTING ANNUAL CRIME STATISTICS BY SECTION¹, 2007

Section	Homicide	Rape	Robbery	Burglary	Auto Theft
Denver	47	296	1,045	5,694	5,121
Adams	1	75	48	641	602
Westminster	0	22	48	454	499
Broomfield	0	11	11	135	68
Louisville	0	0	1	64	17
Boulder	1	37	27	404	96
Longmont	1	102	40	345	145

Source: US Department of Justice, 2007.

Notes:

¹ Crimes presented in this table are reported by local police or sheriff's offices for the primary city and/or county within each project section.

Table 3.12-2 reports crime rates relative to population. This is based on 2000 population estimates and crimes reported in 2007. Consistent with the information presented in Table 3.12-1, crimes rates were highest in Denver (21 crimes per 1,000 people) and lowest in Louisville (four crimes per 1,000 people).

TABLE 3.12-2. SUMMARY OF CRIME RATES RELATIVE TO POPULATION¹

Section	2000 Population Coverage	Total Serious Crimes ²	Crimes Per 1,000 People
Denver	573,387	12,203	21
Adams	88,980	1,397	6
Westminster	106,383	1,023	10
Broomfield	46,393	225	5
Louisville	18,335	82	4
Boulder	91,047	565	6
Longmont	85,391	633	7

Source: US Department of Justice, 2007.

Notes:

¹ Crimes presented in this table are reported by local police or sheriff's offices for the primary city and/or county within each project section.

² Serious crime consists of murder, rape, robbery, burglary, and auto theft.

Crime records for existing park-n-Ride locations within 0.5 mile of the proposed alignment were examined to assess the safety and security of patrons under current conditions. As shown in Table 3.12-3, these park-n-Rides have very low incidents of reported crime, with

only six reported crimes at the Westminster Center park-n-Ride and two at the US 36 and Church Ranch Road park-n-Ride between 2007 and 2008.

TABLE 3.12-3. EXISTING PARK-N-RIDE CRIME RATES

park-n-Ride Location	Parking Spaces	2007		2008	
		Theft	Vandalism	Theft	Vandalism
Westminster Center	1310	3	1	2	0
US 36 and Church Ranch Road	396	2	0	0	0
US 36 and E. Flatirons Circle	264	0	0	0	0
SH Highway 119 and Niwot Road	28	0	0	0	0

Source: J. Tarbert, pers. comm., 2009.

Reported crime on board light rail vehicles for 2007 and 2008 is presented in Table 3.12-4. Trespassing is the most common offense on transit vehicles, with 23 incidents reported in 2007 and 11 incidents reported in 2008. Trespassing refers to incidents where the public is on or near tracks or in other unauthorized locations owned by RTD. Such actions can result in serious injury or even death. Crime potential on commuter rail vehicles is anticipated to be similar to light rail vehicles.

TABLE 3.12-4. EXISTING LIGHT RAIL TRANSIT INCIDENTS ON BOARD VEHICLES

Incidence Onboard Vehicles	2007	2008
Arson	0	0
Assault	2	2
Disorderly Conduct	0	0
Drug Offense	0	0
Forgery/Counterfeit	0	0
Fraud	0	0
Robbery	4	1
Sex Offense	0	0
Theft	8	3
Transit-specific crime	0	0
Trespassing	23	11
Threats	0	0
Weapons Offense	0	0
Vandalism	2	3
Total	39	20

Source: J. Tarbert, pers. comm., 2009.

3.12.2.3 Police, Fire, and Emergency Services

Police, fire, and emergency services are provided from a number of different agencies, districts, and companies throughout the project study area. Table 3.12-5 includes a summary of existing services by project section.

TABLE 3.12-5. POLICE, FIRE, AND EMERGENCY SERVICES BY SECTION

Section	Police/Sheriff	Fire	Emergency Services
Denver	<ul style="list-style-type: none"> District 1 (1311 W. 46th Avenue) 	<ul style="list-style-type: none"> Fire Station #6 (1300 Blake Street) Fire Station #7 (2195 W. 38th Avenue) 	<ul style="list-style-type: none"> No hospitals have been identified in this section.
Adams	<ul style="list-style-type: none"> No stations have been identified in this section. 	<ul style="list-style-type: none"> Fire Station #1 (3948 W. 73rd Avenue) Fire Station #2 (9150 Lowell Boulevard) 	<ul style="list-style-type: none"> No hospitals have been identified in this section.
Westminster	<ul style="list-style-type: none"> Police Mall Station (Westminster Mall) Public Safety Center (910 Yates Street) 	<ul style="list-style-type: none"> Fire Station #3 (7702 W. 90th Avenue) Fire Station #5 (10100 Garland Street) Fire Administration Center (9110 Yates Street) 	<ul style="list-style-type: none"> St. Anthony Hospital North (84th Avenue and Bryant Street)
Broomfield	<ul style="list-style-type: none"> Police Department (7 DesCombes Drive) Field Office (Flatiron Crossing) 	<ul style="list-style-type: none"> Provided by the North Metro Fire 	<ul style="list-style-type: none"> No hospitals have been identified in this section.
Louisville	<ul style="list-style-type: none"> Police Department (992 West Via Appia) 	<ul style="list-style-type: none"> Fire Station #1 (1240 Main Street) Fire Station #2 (895 W. Via Appia) 	<ul style="list-style-type: none"> Avista Adventist Hospital (100 Health Park Drive)
Boulder	<ul style="list-style-type: none"> No stations have been identified in this section 	<ul style="list-style-type: none"> Fire Station #2 (2225 Baseline Road) Fire Station #4 (4100 Darley Street) 	<ul style="list-style-type: none"> Boulder Emergency Squad (3532 Diagonal Highway)
Longmont	<ul style="list-style-type: none"> Office of Safety and Justice (225 Kimbark Street) 	<ul style="list-style-type: none"> Fire Station #6 (501 S. Pratt Parkway) 	<ul style="list-style-type: none"> No hospitals have been identified in this section.

Source: NWR Corridor Project Team, 2009.

The Colorado State Patrol provides emergency response services and traffic enforcement throughout the project study area. However, their duties, responsibilities, and responses do not extend into municipalities. The Boulder County Sheriff's Office handles emergency dispatch service for Boulder County and the cities of Louisville, Lafayette, and Superior. The Boulder Police Department handles emergency dispatch service for the City of Boulder, and the Longmont Police Department handles dispatch for the City of Louisville. Emergency response services and traffic enforcement is also provided by the City and County of Denver and Adams and Jefferson Counties.

Emergency service providers rely on major transportation networks to respond to incidents within the project study area. Communities are connected to these services by major highways (e.g. United States Highway [US 36], US 287, and State Highway [SH] 119) and principal arterials (e.g. Pecos Street, 120th Avenue, Valmont Road, Pratt Parkway).

3.12.3 Impact Evaluation

3.12.3.1 Methodology

Existing crime statistics and public safety and security resources were evaluated for the No Action Alternative and Preferred Alternative to determine the potential for crime at new stations, changes in emergency response times, and safety at at-grade rail crossings.

3.12.3.2 Results

No Action Alternative

Direct, Indirect, Temporary Construction, and Cumulative Impacts

The roadway and transit projects included in the No Action Alternative would likely result in direct, indirect, temporary construction, and cumulative impacts to safety and security. The extent of these impacts will be evaluated in the environmental documents being prepared for these projects.

In general, changes in emergency response times would be dependent on the location and extent of improvements (increasing where improvements are constructed and decreasing in areas where congestion persists). Crime at park-n-Rides and bus rapid transit stations would likely be consistent with existing trends.

Preferred Alternative

Direct Impacts

For the Preferred Alternative, on board crime would be similar to the statistics presented in Table 3.12-1 and proportionate to increases in transit service.

NWR Corridor Alignment

Increased train frequency at at-grade railroad crossings could affect emergency response times. Emergency vehicles could be delayed at railroad crossings more often because of the increase in train movements. The higher frequency of trains could also impact safety at railroad crossings. Increased numbers of trains, coupled with the additional traffic generated by the station locations, could create more opportunities for accidents to occur at at-grade rail crossings. However, safety at most crossings would improve overall when crossings are outfitted with the minimum crossing protection measures required by RTD standards (gates and barrier curbs).

Proposed Stations

A comparison of crime potential at station areas was evaluated by calculating a crime index for each station. The crime index was calculated by multiplying the number of parking spaces per station by the crime rate for the surrounding area. This information is presented in Table 3.12-6.

TABLE 3.12-6. STATION CRIME INDICES

Station	Parking Spaces	Crime Rate (crimes/1,000 people)	Crime Index
South Westminster/71 st Avenue	The station crime index associated with the South Westminster/71 st Avenue Station is included under Phase 1.		
Westminster/88 th Avenue	NA	10	NA
Walnut Creek	252	10	2.52
Broomfield/116 th Avenue	NA	5	NA
Flatiron/96 th Avenue	269	5	1.35
Downtown Louisville	424	4	0.17
East Boulder	NA	6	NA
Boulder Transit Village	286	6	1.72
Gunbarrel	214	6	1.28
Twin Peaks	NA	7	NA
Downtown Longmont	689	7	4.82

Source: NWR Corridor Project Team, 2009.

Notes:

NA = Not Applicable - Station concept plans have not yet been completed to this level of detail for non-FasTracks funded stations.

Available information suggests that the frequency of crime at transit stations mirrors the crime of the surrounding area (RTD 2006). The majority of these crimes are non-violent acts such as burglary and auto theft. According to Table 3.12-6, the station with the highest potential exposure to crime is the Downtown Longmont Station. Although information is not available for the Westminster/88th Avenue Station, it is assumed that this station would have a greater potential for exposure to crime than the Downtown Longmont Station because the surrounding area has higher crime rates than Longmont. It is important to note that actual reported crime rates at existing park-n-Ride stations within 0.5 mile of the proposed stations indicate that crime at stations is low, with only two crimes reported in 2008 (J. Tarbert, pers. comm. 2009).

Phase 1

Implementation of Phase 1 between Denver Union Station and the South Westminster/71st Avenue Station would result in no new public at-grade crossings, therefore avoiding any impairment to emergency services.

The crime index for the South Westminster/71st Avenue Station would be 5.48 (based on the assumption of 913 parking spaces and a crime rate of 6 crimes/1,000 people). While higher than any of the stations included in the project study area, crime rates would be expected to remain low, consistent with crimes reported at existing park-n-Ride stations in the area (see Table 3.12-3).

Indirect Impacts

Transit stations may induce additional development in the surrounding areas that would generate higher traffic volumes in those areas and increase the potential for accidents at at-grade railroad crossings.

Temporary Construction Impacts

Construction-related hazards are a concern for any infrastructure project. Police, fire, and emergency services may be adversely affected by increased response times due to construction activities. RTD and its contractors would comply with all applicable requirements to protect workers, the local community, and the environment during construction.

Cumulative Impacts

The Preferred Alternative would not result in cumulative impacts to public safety and security. As population within the project study area increases, it can be expected that the number of crimes and the demand for emergency services also would increase.

Avoidance and Minimization Measures

The RTD design, construction, and operations standards for new transit systems incorporate several components and actions to make the systems safe and secure for transit patrons and the general public. A hazard identification, analysis, and resolution process is required for all transit engineering projects. Hazards are identified through a Preliminary Hazards Analysis to define hazards and their effects. In addition, a safety certification process is required to verify that system elements comply with a formal list of safety requirements for the transit mode.

RTD would work with police, fire and transportation agencies during project design to ensure reliable emergency access is maintained. To minimize the impact on emergency response times, RTD would commit to maintain at least one open lane of traffic on affected routes during construction. Alternative plans or routes would be developed if needed to avoid delays in emergency response times.

Fencing or barriers would be provided along the proposed alignment and surrounding station areas. These would be designed to be a safety barrier to prevent trespassers, vehicles, trucks, and other users from entering the trackway. These would also be designed to prevent road debris or plowed snow, slush, and ice from entering the trackway or station areas. Safety measures would be incorporated on elevated sections to provide fall protection as well as adequate space for maintenance workers.

All stations would be designed with a minimum of two access and egress points. These points would facilitate safe and efficient evacuation of a station in 4 minutes or less.

Surveillance would include both personal and video surveillance. Video surveillance systems would be capable of transmitting real-time video to RTD via a fiber optic transmission backbone or other suitable transmission network. Personal surveillance would include uniformed officers who inspect transit stations on a recurring basis.

Emergency telephones would be installed onsite. Emergency telephones would be consistent with existing RTD units and would meet performance requirements of RTD's existing emergency telephone network. Emergency telephones would cover station platforms, elevator waiting areas, stairwell entries, parking structures, pedestrian tunnels, and pedestrian bridges.

Crime Prevention Through Environmental Design (CPTED): CPTED strategies will be incorporated in the entire design. The purpose of CPTED is to minimize potential threats and

vulnerabilities to the transit system, facilities and patrons and maximize safety and security through engineering and design. CPTED strategies that will be included are:

- Maximizing the visibility of people, parking areas, patron flow areas and building/structure areas.
- Providing adequate lighting to minimize shadows.
- Installing graffiti guards and remove graffiti when discovered.
- Installing mylar shatter guard protection for glass windows;
- Installing landscaping that maximizes visibility.
- Providing gateway treatments, decorative fencing, perimeter control, and a minimum number of parking structures access points.
- Coordinating and cooperating with municipalities to promote transit friendly land uses. (Avoid land uses that have links to crime).
- Establishing maintenance programs that repair broken windows, pick-up litter, and manage streetscapes and public spaces.

Design elements and electronic technology would be used to ensure the transit platform area is safe and free of hazards. Representative measures include:

- Active and passive warning devices that alert persons of risks and hazards.
- Light Emitting Diode flashing pedestrian warning signs that warn of an approaching train.
- Pavement coloring and texturing to notify pedestrians of hazards and/or risk areas.
- Pedestrian bafflers such as swing gates, automatic pedestrian gates, or Z-crossings on platforms with poor sight distance to prevent pedestrians from entering the trackway.

An internet-based local information network would be created to serve a variety of needs. It would provide promotional opportunities; real-time transit information; updates on construction, route closures, and alternative route information; and other transportation information and services. The network would be coordinated with state and regional Intelligent Transportation Systems projects.

RTD would work with local police and sheriff's departments to plan for appropriate security forces and would increase the number of private security guards on patrol within the corridor proportionate to the increase in service.

Additional safety and security measures would be undertaken during construction to reduce the public, including:

- Producing Traffic Management Safety Reports and Traffic Control Plans for each phase of construction.
- Accounting for the poor air quality season (November 1 to March 1).
- Keeping transit operating at existing stops where possible.
- Keeping bicycle and pedestrian facilities continuous.

- Ensuring the contractor obtains permits and approvals by local governments for all detours.
- Providing signing plans (sign continuity must be maintained and advance warning of any closure provided at least 7 days in advance).
- Providing pavement marking plans to maintain access and circulation in construction areas.
- Providing temporary signalization plans in coordination with RTD, local agencies, and utility providers.

3.12.4 Mitigation Measures

Mitigation techniques to reduce identified impacts to public safety and security are described in Table 3.12-7.

TABLE 3.12-7. PROPOSED MITIGATION MEASURES - PUBLIC SAFETY AND SECURITY

Impact	Impact Type	Mitigation Measures
Lane closures and detours and potential impact on emergency response times	Construction	<ul style="list-style-type: none"> • RTD will prepare a Construction Management Plan that specifies public communications and construction means and methods to reduce or mitigate construction traffic and preserve access to homes, businesses, and community facilities. • RTD will follow standard operating procedures to minimize traffic disturbances. • Traffic detour plans will be provided to address the two week closure of local streets during at-grade crossing construction.
Potential impact to emergency response times	Direct/Operations	<ul style="list-style-type: none"> • No mitigation required beyond the adherence to RTD's station design standards for safety and security. • RTD will convene a Fire and Life Safety Committee that will assist in preparing in an emergency plan and coordinate response to emergency situations.

Source: NWR Corridor Project Team, 2009.

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